## In the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest, comprising:

a selector for identifying at least one substance of interest;

a profiler for selecting from multiple profiles related to the safety of the at least one substance of interest, using at least one filter;

at least one data mining engine <u>for processing cases submitted by the at least one</u> <u>filter;</u> and

an output device for displaying the analytic results from the data mining engine.

- 2. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the at least one data mining engine is a proportional analysis engine to assess deviations in a set of reactions to the at least one substance of interest.
- 3. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the data mining engine is a comparator to measure the reactions to the at least one substance of interest against a user-defined backdrop.
- 4. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1,

wherein the data mining engine is a correlator to look for correlated signal characteristics in drug/reaction/demographic information.

- 5. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the data mining engine is at least two members of the group consisting of a proportional analysis engine, a comparator, and a correlator.
- 6. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the substance of interest is assessed in combination with other drugs, foodstuffs, beverages, nutrients, vitamins, toxins, chemicals, hormones, and supplements.
- 7. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the system permits assessment and analysis of the risks of adverse effects resulting from the use of at least one substance of interest in any of multiple dimensions of the risk assessment and analysis.
- 8. (Currently Amended) A system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest, comprising:

a selector for identifying at least one drug of interest;

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a profiler for selecting from multiple profiles related to the safety of the at least one drug of interest, using at least one filter;

at least one data mining engine <u>for processing cases submitted by the at least one</u> filter; and

an output device for displaying the analytic results from the data mining engine.

- 9. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the at least one data mining engine is a proportional analysis engine to assess deviations in a set of the reactions to the drug of interest.
- 10. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the data mining engine is a comparator to measure the reactions to the drug of interest agains a user-defined backdrop.
- 11. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the data mining engine is a correlator to look for correlated signal characteristics in drug/reaction/demographic information.
- 12. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the

data mining engine is at least two members of the group consisting of a proportional analysis engine, a comparator, and a correlator.

- 13. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the drug of interest is assessed in combination with other drugs, foodstuffs, beverages, nutrients, vitamins, toxins, chemicals, hormones, and supplements.
- 14. (Currently Amended) The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the system permits assessment and analysis of the risks of adverse effects resulting from the use of at least one drug of interest in any of multiple dimensions of the risk assessment and analysis.
- 15. (Currently Amended) A method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest, comprising:

identifying the at least one substance of interest;

selecting the <u>a</u> profile of the at least one substance of interest related to the safety of the at least one substance of interest, using at least one filter;

analyzing the risks of adverse effects resulting from the use of the at least one substance of interest using at least one data mining engine for processing cases submitted by the at least one filter; and

displaying the results of the analysis of from analyzing risks of adverse effects

resulting from the use of the at least one substance of interest.

- 16. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 15, wherein the at least one data mining engine is a proportional analysis engine to assess deviations in a set of the reactions to the at least one substance of interest.
- 17. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 15, wherein the at least one data mining engine is a comparator to measure the reactions to the at least one substance of interest against a user-defined backdrop.
- 18. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 15, wherein the at least one data mining engine is a correlator to look for correlated signal characteristics in drug/reaction/demographic information.
- 19. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 15, wherein the data mining engine is at least two members of the group consisting of a proportional analysis engine, a comparator, and a correlator.

- 20. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 18, wherein the at least one substance of interest is assessed in combination with other drugs, foodstuffs, beverages, nutrients, vitamins, toxins, chemicals, hormones, and supplements.
- 21. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 18, wherein the method permits assessment and analysis of the risks of adverse effects resulting from the use of at least one drug-substance of interest in any of multiple dimensions of the risk assessment and analysis.
- 22. (Currently Amended) A method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest, comprising:

identifying the at least one drug of interest, as well any other drugs, nutrients, supplements, and other substances;

selecting the <u>a</u> profile of the at least one drug of interest related to the safety of the at least one drug of interest, using at least one filter;

analyzing the risks of adverse effects resulting from the use of the at least one drug of interest using at least one data mining engine for processing cases submitted by the at least one filter; and

displaying the results of the analysis of from analyzing risks of adverse effects resulting from the use of the at least one drug of interest.

- 23. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22, wherein the at least one data mining engine is a proportional analysis engine to assess deviations in a set of the reactions to the at least one drug of interest.
- 24. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22, wherein the at least one data mining engine is a comparator to measure the reactions to the at least one drug of interest against a user-defined backdrop.
- 25. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22, wherein the at least one data mining engine is a correlator to look for correlated signal characteristics in drug/reaction/demographic information.
- 26. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22, wherein the data mining engine is at least two members of the group consisting of a proportional analysis engine, a comparator, and a correlator.
- 27. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22, wherein

the at least one drug of interest is assessed in combination with other drugs, foodstuffs, beverages, nutrients, vitamins, toxins, chemicals, hormones, and supplements.

28. (Currently Amended) The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22, wherein the method permits assessment and analysis of the risks of adverse effects resulting from the use of at least one drug of interest in any of multiple dimensions of the risk assessment and analysis.